

REMARKS

In response to the Final Office Action mailed March 9, 2004, Applicant respectfully requests reconsideration.

To further the prosecution of this application, amendments have been made to the written description of the specification as illustrated above. No new matter has been added by these amendments. The Examiner is respectfully requested to approve these amendments.

In response to the objections to the equations listed in paragraph 4-1 of the Office Action, Applicant has corrected the equations. Support for Applicant's corrections to the equations can be found in the parent application, Serial No. 09/028,415 filed February 24, 1998, now U.S. Patent No. 6,031,983. No new matter has been introduced. A highlighted copy of column 3 of U.S. Patent No. 6,031,983 is enclosed for the Examiner's convenience.

Column 3, lines 50 – 64 of U.S. Patent No. 6,031,983 read as shown below:

“An equation for b_0' is now generated using the constraint (1) and the parameterization technique so that:

$$b_0' = (\text{NOT } b_0 \text{ AND NOT } [b_0=1]) \text{ OR } (b_0 \text{ AND } [b_0=0]) \\ = \text{NOT } b_0$$

Substituting this equation in constraint (2) gives

$$b_1 = (b_0 \text{ AND } b_1') \text{ OR } (\text{NOT } b_0 \text{ AND NOT } b_1') \text{ or, equivalently:}$$

$$(b_1' \text{ AND } [b_0=b_1]) \text{ OR } (\text{NOT } b_1' \text{ AND NOT } [b_0=b_1])$$

By using this equation, an equation for b_1' can be generated by the parameterization technique, whereby:

$$b_1' = (\text{NOT } b_1 \text{ AND } [b_0=b_1]) \text{ OR } (b_1 \text{ AND } [b_0=b_1]) \text{ thus } b_1' = [b_0=b_1]$$

The transitions of the reverse machine are now such that the value of b_0 on the next cycle is calculated as NOT b_0 , and the value of b_1 on the next cycle is calculated as $b_0=b_1$.”

At the time this continuation-in-part application was filed, typographical errors occurred in these equations, which errors previously went unnoticed. Applicant is correcting these errors herein.

In the first paragraph which reads: “An equation for b_0' is now generated using the constraint (1) and the parameterization technique SO that:” the word “so” was erroneously
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entered in capital letters in the instant application. Applicant herein corrects this paragraph to read: --An equation for b_0' is now generated using the constraint (1) and the parameterization technique so that:--.

In the equation found on the last line of page 5 of the application as filed which reads: " $b_0' = (\text{NOT } b_0 \text{ AND NOT } [b_0=1]) \text{ OR } b_0 \text{ AND } [b_0=0]$ " an opening parenthesis was inadvertently omitted. The equation is corrected to read -- $b_0' = (\text{NOT } b_0 \text{ AND NOT } [b_0=1]) \text{ OR } (b_0 \text{ AND } [b_0=0])$ --. (Emphasis added for clarity).

The equation found on page 6, lines 3-4 of the application as filed reads:

$b_1(b_0 \text{ AND } b_1') \text{ OR } (\text{NOT } b_0 \text{ AND NOT } b_1') \text{ or, equivalently: -}$
 $(b_1') \text{ AND } [b_0=b_1]) \text{ OR } (\text{NOT } b_1' \text{ AND NOT } [b_0=b_1])$

An "=" sign was inadvertently omitted from line three after " b_1 " before " $(b_0 \text{ AND } b_1')$ " and in line 4, after " b_1 " before "AND" a close parenthesis was erroneously inserted. Applicant herein corrects this equation to read:

$b_1 = (b_0 \text{ AND } b_1') \text{ OR } (\text{NOT } b_0 \text{ AND NOT } b_1') \text{ or, equivalently:}$
 $(b_1' \text{ AND } [b_0=b_1]) \text{ OR } (\text{NOT } b_1' \text{ AND NOT } [b_0=b_1])$

The equation found on page 6, line 7 of the application as filed reads:

$b_1' = (\text{NOT bill AND } [b_0=b_1]) \text{ OR } (b_1 \text{ AND } [b_0=b_1]) \text{ thus } b_1' = [b_0=b_1]$

The word "bill" was mistakenly inserted where -- b_1 -- should have been. Applicant herein amends this equation to read: $b_1' = (\text{NOT } b_1 \text{ AND } [b_0=b_1]) \text{ OR } (b_1 \text{ AND } [b_0=b_1])$ thus $b_1' = [b_0=b_1]$.

As stated above, the errors in the equations are typographical in nature and were apparently introduced when the instant continuation-in-part application was filed. These errors have now been corrected. Applicant respectfully requests that these corrections to the specification be approved by the Examiner and that the rejections and objections to the specification be withdrawn.

Applicants have also amended the claims to substitute the phrase "finite state machine" for the phrases "control system" or "electronic circuit" where those phrases appear in the claims. Applicant wishes to note for the record that this change in language has been made to be sure that there is no doubt that the claim language is supported by the specification. Applicant does not believe that this change in language narrows the scope of the claimed invention.

Accordingly, Applicant only use that any rejections and objections with respect to this language should now be overcome and withdrawal of these objections and rejections is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this document is being placed in the United States mail with first-class postage attached, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 14, 2004.



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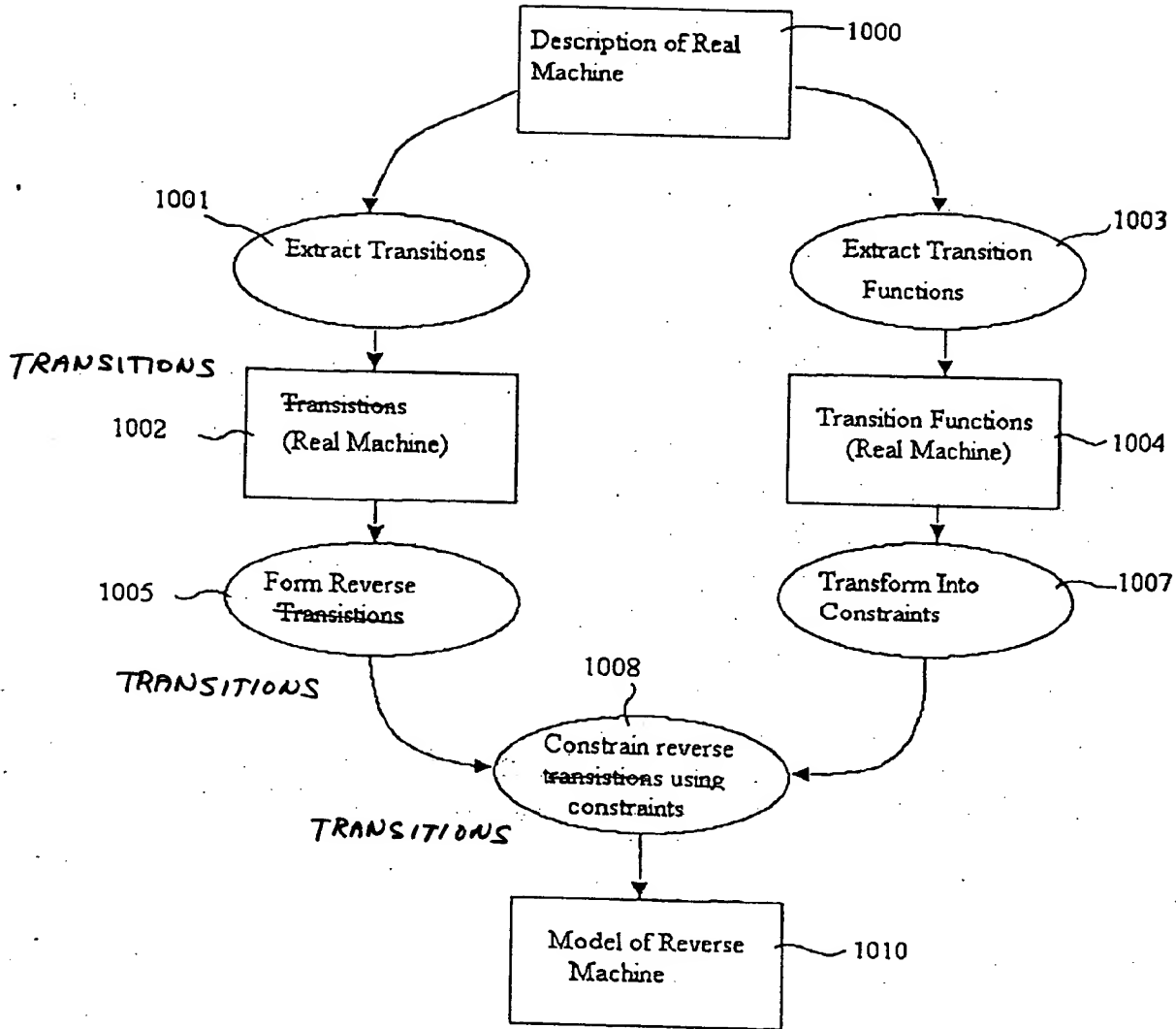


FIG. 3